1. A method to synthesize modulation waveforms, the method comprising:

providing an error signal and a first shift signal;

integrating the error signal to provide an integrated error signal;

summing the first shift signal with the integrated error signal to provide a total shift signal;

providing a synthesized modulation waveform characterized by a frequency proportional to the total shift signal; and

sending the synthesized modulation waveform to a destination device.

2. The method of claim 1, wherein the shift signal is data keyed.

3. The method of claim 2, wherein the data keying comprises frequency shift keying.

4. The method of claim 2, wherein the data keying comprises frequency domain orthogonal codes.

5. The method of claim 4, wherein the frequency domain orthogonal codes are Walsh codes.

6. The method of claim 1, further configured for data keying, the method further comprising:

providing a data signal; and

pre-modulating the synthesized modulation waveform in accordance with the data signal to provide a synthesized modulation waveform that is data keyed.

7. The method of claim 6, wherein the data signal is encoded using orthogonal codes.

8. The method of claim 7, wherein the orthogonal codes are Walsh codes.

9. The method of claim 1, wherein the synthesized modulation waveform is a quadrature waveform comprising first and second waveform components substantially 90 degrees out of phase.

10. The method of claim 9, wherein the first and second waveform components are substantially triangular in shape.

11. The method of claim 9, wherein the first and second waveform components are substantially sawtooth in shape.

12. The method of claim 1 further configured for ON/OFF data keying, the method further comprising:

providing a binary data signal representing ON and OFF positions;

the destination device having a dark point; and

providing the synthesized modulation waveform corresponding to the dark point of the destination device if the binary data signal is in the OFF position.

13. The method of claim 1, adapted for frequency shift keying comprising:

providing a second shift signal;

providing a binary data signal representing first and second positions;

selecting the first shift signal if the binary data signal corresponds to the first position and the second shift signal if the binary data signal corresponds to the first position to provide a data keyed shift signal; and

summing the data keyed shift signal and the integrated error signal to provide the total shift signal.

14. The method of claim 1, wherein the synthesized modulation waveform is substantially a triangle wave.

15. The method of claim 1, wherein the synthesized modulation waveform is substantially a sawtooth wave.

16. The method of claim 1, wherein the first shift signal comprises a spreading function.

17. The method of claim 1, wherein the first shift signal comprises a gathering function.

18. The method of claim 1, wherein the first shift signal comprises the difference between two spreading functions.